CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)

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Project Number

36612

Project Title

What Is the Effect of Different MgSo4 Concentrations on Hydrogen and Oxygen Gas Production?

Abstract

Objectives/Goals

The objective of this experiment is to see the effect of different magnesium sulfate concentrations on hydrogen and oxygen gas production through the process of electrolysis.

Methods/Materials

9-Volt battery, test tubes, water, magnesium sulfate, balance, syringe, timer. Put the battery in different magnesium sulfate concentrations, set timer for twenty minutes, saw amount of hydrogen and oxygen gas production using syringe. Electrolysis Process.

Results

9-Volt battery placed in several different concentrations of magnesium sulfate to find which concentration produced most hydrogen and oxygen gas. Different peaks at which gas production was most. No particular pattern.

Conclusions/Discussion

Trials with different concentrations showed no specific - lineal/exponential -correlation. No optimum concentration either; just peaks at different concentrations for most gas production.

Summary Statement

Using the process of electrolysis, I proved that there is no particular correlation between magnesium sulfate concentrations and hydrogen and oxygen gas production.

Help Received

None. I prepared the solutions and timed the gas production myself. The only help I received from my parents was getting supplies.